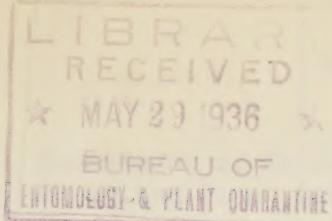


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



May 1936

United States Department of Agriculture
Bureau of Entomology and Plant Quarantine

A METHOD OF PREPARING INSECT SPECIMENS FOR RIKER MOUNTS

George H. Kaloostian and Heber C. Donohoe,
Division of Fruit Insect Investigations *

The writers have developed a method for the preparation of certain adult insects for exhibit in Riker mounts which has been used successfully with specimens of the raisin moth, Ephestia figulilella Greg., and several beetles that attack dried fruits.

Short pieces of glass tubing, of sufficient inside diameter to accommodate the insects being prepared, and strips of heavy clear celluloid, equal in length to the sections of tubing and wide enough to fit snugly into them, are prepared. The insects, previously dried in the pose desired, are glued to the upper surface of the celluloid strip with a colorless cellulose-acetate cement, and the strip is inserted into the section of tubing.

The ends of the tubing are plugged with plaster of paris in the following manner: Each opening is capped with a strip of celluloid as long as the outside diameter of the tube and slightly narrower than the width of the tube-bore. The ends of the strip are rounded to conform with the outside curve of the tube wall. Before applying the plaster of paris seal, the strip may be glued to the end of the tube or held in place with the fingers of one hand while fashioning the plaster of paris cap. Using a small scalpel, the cap of plaster is molded over the strip, the chief function of the strip being to prevent the plaster from extending into the tube. In the process of applying the soft plaster it tends to enclose the edges of the celluloid strip slightly, thereby holding the strip more firmly in place.

If more than one insect is used on a mounting strip, the individuals may be variously arranged to show dorsal, ventral, and lateral views. When dry these sections may be arranged in the Riker mount as desired. While insects in a round container in fluid show distortion, those mounted dry by this method do not.

*This method was developed while the senior author was temporarily employed at the Dried Fruit Insect Laboratory, Fresno, Calif.

ADAPTING TO JEWELRY-BOXES DESIGN

The advantages of preparing insects in this fashion are several. The specimens are enclosed in pest-proof containers; there is no danger of breaking or distorting them while preparing the exhibit. The insects appear suspended within the sections of tubing and are more distinct and sharply outlined than when arranged directly on the cotton background. Should need arise for the removal of the insects, it can be accomplished without danger of breakage. When removed the specimens may be examined from both top and bottom aspects.

Lacking facilities for sealing immature specimens in alcohol in glass tubing by fusing the ends of the tubing, the writers prepared such specimens in 70-percent alcohol in vials closed tightly with cork stoppers cut off even with the tops of the vials. A seal of cellulose-acetate cement enclosing the neck of the vial and exposed cork surface appears to be more permanent and heat resistant than similar seals of paraffin.